

1 **ABSTRACT**

2 Systems and methods for midstream determination of varying available
3 bandwidth for streaming content between two network entities are described.
4 During content streaming, a client requests a server to surge the content
5 transmission rate. One or more bandwidth measurements are taken during the
6 surge to determine if the increased transmission rate can be adequately managed.
7 If the increased transmission rate can be adequately managed, the client may
8 request the server to transmit remaining content at a transmission rate that is not
9 greater than the increased, or surged, transmission rate. In a multi-bitrate file
10 scenario, the surge rate may be higher than the rate of the fastest useable stream.
11 In such a case, the fastest useable stream is selected. If the increased transmission
12 rate is not suitable for future transmission, then the rate may remain at the original
13 transmission rate.

14
15
16
17
18
19
20
21
22
23
24
25